

Bangladesh - Agriculture Input Survey 1994

BANGLADESH BUREAU OF STATISTICS

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Overview

Identification

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VERSION DESCRIPTION

PRODUCTION DATE
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Overview

ABSTRACT

The project entitled "A study on the use of Agricultural Inputs for Major Crops in Bangladesh" was undertaken in October 1992. The 16 month field survey was conducted between mid February, 1983 and mid June, 1994. A long questionnaire with 59 columns was canvassed once a month in 9143 clusters of temporary crops. The average cluster size was 5 acres, each with an average 20 plots. The temporary crops include rice, jute, wheat, potato and sugarcane.

The objective of the project is to find out farmers' practices on the use of agricultural inputs in temporary crops. Finding out of a relationship between the inputs used and the resultant outputs, that is, impact of inputs (individually and collectively) on outputs is aimed at. This will help determine an objective basis for planning of crop production, inputs supply and use and pricing.

This is the first survey of this kind. The size of the sample survey has been very large. About 2 lac plots involving interview of about 1.5 lac farmer4 every month were taken for the survey. The size of the questionnaire (with 59 questions) was also very large. On the other hand there was no provision of man-power except 6 officers and 8 staff for handling this survey. Initially the project suffered organisational difficulties due to man-power shortage. The project proforma was then revised and some staffmembers were added.

Since this is the first survey of its kind some conceptual mistakes, omissions and operational lapses were observed during processing the survey data. We hope that these lapses and omissions will not be repeated in future surveys.

A separate report has been prepared for each major crop. The report contains tables of crop data with explanatory notes on each table. The regression tables and their analysis on the impact of each input on production merit special attention.

I am thankful for the wholehearted co-operation and willing disclosure of facts by our farmers.

I want to express my sincere thanks to Mr. M.A. Jalil Bhuiyan, Project Director and other officers and staff of the Project who have worked very hard.

KIND OF DATA
Sample survey data [ssd]

Scope

NOTES

The Agricultural Statistics Wing of Bangladesh Bureau of Statistics have been publishing Agricultural Statistics based on the reports received from 5754 old clusters out of the total of 9348 selected clusters both old and new spread all over Bangladesh. Data collection is done by the BBS field staff. Out of these clusters 9,143 have been found under temporary crops. Remaining 205 clusters are either homestead or rivers or under permanent crops, forest and the like. These were not brought under scope of the survey. So in all 9,143 clusters (both old & new) were the actual units of this survey.

Coverage

UNIVERSE

In the original Project Profon-na (P.P.) 12 monthly surveys were proposed. In the revised P.P. the survey was extended by 4 months to cover the missed input data of cultivation & sowing stages in respect of major crops like boro, wheat and potato. The survey was conducted on monthly basis through observing the clusters and crop condition in each plot and interviewing the operator cultivators. It may be mentioned here that the survey field work started in Falgun, 1395 Bangla year corresponding to mid-February, 1989.

Only five major crops namely Rice (all varieties), Jute (two varieties), wheat (two varieties), potato and sugarcane were studied. National, regional or sub-regional estimation of inputs or outputs were not included in the scope of the survey. Data on crop area, inputs used and outputs produced were collected only from 9143 clusters in respect of five major crops. These data were processed and tabulated as per predesigned tabulation plan.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
BANGLADESH BUREAU OF STATISTICS	Statistics and Informatics Division, Ministry of Planning

FUNDING

Name	Abbreviation	Role
Statistics and Informatics Division	SID	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
BANGLADESH BUREAU OF STATISTICS	BBS	Statistics and Informatics Division, Ministry of Planning	Documentation of the study

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Sampling

Sampling Procedure

Stratified random survey design was the sample design for selecting the clusters. All the 9143 operated clusters of the existing stratified random clusters design were studied between mid February, 1989 and mid June, 1990 once every month.

Questionnaires

Overview

Pre-test of questionnaire :

Before finalisation of the questionnaire designed for the survey, a Pre-Test was conducted in eight upazilas of four divisions during the period from 15-11-92 to 22-11 -92. Four Deputy Directors were assigned for conducting the Pre-Test in one selected cluster in each of the following eight upazilas.

The objectives of the Pre-test were :-

1. To test suitability of the questionnaire.
2. To test and verify coverage of items of the questionnaire.
3. To identify the questions which respondents found difficult to answer and to determine if enumerators had any difficulty in understanding the concepts, definitions or terminologies used in the questionnaire.
4. To assess respondents' willingness and co-operation.
5. To estimate time required for filling in the questionnaire.

The results obtained in the Pre-Test were discussed by the Technical Committee and the questionnaire modified.

Data Collection

Data Collection Dates

Start	End	Cycle
1993-02-15	1994-06-16	N/A

Data Collection Mode

Other [oth]

Data Collection Notes

Data collection was done in two phases. In the first phase data were collected every month from 9,143 operated clusters by enumerators. The enumerators were mostly BBS field staff posted at upazila headquarters. Some outside enumerators were also engaged, they were selected from amongst the local educated youths. U.S.O.s and R.S.O.s of BBS worked as supervisors. The enumerator at first visited the cluster and noted the crop condition in the plots. He then interviewed the farmers operating plots in the cluster. The questionnaire was filled in by the enumerator every month during the period under reference by interview.

Follow-up monitoring survey :

In the second phase 10% clusters were selected as a systematic sample and surveyed for one year following the main survey using the same questionnaire. This was done with a view to monitoring the data of the previous years main survey. The interview procedure was the same. In the follow-up monitoring survey only BBS field staff worked as enumerators. Selection of clusters of 10% sub-sample was done at the headquarters and list sent to the field. Data obtained in the monitoring survey have been compared with data of the main survey and annexed.

Training

Before the survey field work started, Regional Statistical Officers (RSO) and Deputy Directors (DO) were trained in data collection procedure of the project at Dhaka Head Office of the project. The R.S.O.s in turn trained the upazila Statistical Officers (USO) at their respective regional offices who in turn trained the BBS and local enumerators at their respective Upazila Statistical Offices.

A training manual containing instructions was prepared and training was given at all levels according to the manual to ensure uniformity.

Time schedule for enumeration

After training of the Head Quarters officers, field officers and enumerators, the data collection from the field actually started from Falgun 1395 i.e. mid-February, 1993. Enumerators collected data of every month by the 15th of the month following from the clusters. The collected information by personal field observations of the clusters and interviews of the operator cultivators. During the interview the questionnaire-2 was filled-in. On completion of the interviews, the enumerators submitted the filled-in schedules to the USOs. On receiving all the schedules from enumerators, USO personally examined some filled-in questionnaires at random and sent those to Regional Statistical Offices by the 18th of the same month. In turn, RSO submitted the schedules to Dhaka Head Office by the 20th of the same month after verification.

Questionnaires

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Data Collectors

Name	Abbreviation	Affiliation
Statistics and Informatics Division	SID	Ministry of Planning

Supervision

Upazila statistical officers were responsible for close supervision of the field work. Regional statistical officers also travelled within their regions during the survey period to supervise field work. Officers from the project-headquarters frequently visited clusters to monitor progress of field work. During the visits the officers identified the errors/mistakes committed by enumerators and made corrections on the spot if necessary.

Data Processing

Data Editing

Data processing is the most important and vital part of a survey/census operation. On receipt of the filled-in schedules, these were arranged by upazila, district and region. Manual editing was taken up with the help of the staff of Agriculture Statistic Wing. After completion of the manual editing, the verification of the geo-code of the schedules was undertaken and completed.

On completion of geo-code verification schedules were sent to Computer and Data Processing Wing of BBS for processing by the Main-frame computer. Under the supervision of the Deputy Director (System) of the project the information of the schedules were punched in Mini computer and stored in magnetic tape. An error list was printed out and supplied to the project office for correction. The staff of the project reviewed the inconsistencies and corrected them.

Other Processing

Tabulation :

The corrected data were stored in magnetic tape. Thereafter, the data were tabulated as per tabulation plan. The tabulation plan was approved by the Technical Committee as well as the Steering Committee.

Limitations

1. The work programme of the project was too ambitious compared to man-power of the project. The sample points were 9,143 clusters from where in each month about 15,000 filled-in schedules were received in the project headquarters. It was very difficult to control the movement of these documents and systematically preserve those with the limited technical staff of the project.
2. Estimation at national, regional or sub-regional level of inputs used were not done. Because such estimation was not a design of the project.
3. All the agricultural inputs have not been included in the survey.
4. Frequent interview (once every month) resulted in annoyance and unwillingness to spend full time for interview in case of some farmers.
5. The respondents expect immediate benefit from the survey. But as the interviewer/supervisor failed to provide or assure such benefits they did not receive full co-operation of the farmers in subsequent visits.
6. Respondents were asked to report the quantity of inputs purchased last month and their price. It was often difficult for them to remember and report the information accurately.
7. Non-sampling errors might have arisen at interview, editing and punching stages. Though it was not possible to eliminate all the non-sampling errors, attempt was made to reduce and keep these under control.
8. There was the possibility of misreporting in respect of quantity used of inputs. Generally farmers buy inputs like seed/seedling, fertilizers, pesticides for his whole farm and not separately for the plots within the cluster. In reporting the quantity used in the plots in the cluster there might be over/under reporting.

Data Appraisal

No content available